

From: Mower, Tim
Sent: Thursday, September 2, 2010 8:42 AM
To: Kito, Melanie R CIV NAVFAC SW; Forman, Keith S CIV OASN (EI&E), BRAC PMO West; Callaway, Rex CIV NAVFAC SW; Macchiarella, Thomas L CIV OASN (EI&E), BRAC PMO West; Liotta, Rita M CIV WEST Counsel; Cummins, John M CIV NAVFAC SW; Gilkey, Douglas E CIV OASN (EI&E), BRAC PMO West; Larson, Elizabeth A CIV OASN (EI&E), BRAC PMO West; 'jeff.giangiuli@calibresys.com'
CC: Hall, Steve; 'Leslie.Lundgren@CH2M.com'; 'Robert Ferry'; 'Tom Berry'
Subject: TSRS chemical tables showing ROD COCs
Attachments: TSRS_chem_tables_showing_ROD_COCS.doc

Categories: Hunters Point

Hello team,

Attached are the lists of chemicals for Parcels B and G (Tables 3a and 3b of the TSRS) with the chemicals highlighted that have remediation goals in the RODs for these parcels. You will find many fewer chemicals are highlighted, especially for Parcel G (see the numbers below if you're interested in the details). This information is for the team's internal use and won't be part of the update to the TSRS.

Let me know if you have any questions.

V/r
Tim Mower

	total number of chemicals	ROD COCs
Parcel B		
soil	140	30
groundwater	105	26
Parcel G	total number of chemicals	ROD COCs
soil	104	5
groundwater	67	8

PLEASE NOTE: This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.

TABLE 3a

REASONABLY EXPECTED ENVIRONMENTAL CONDITIONS FOR PARCEL B

Table 3a, Parcel B

Analytical Group	Chemical
SOIL	
METAL	ALUMINUM
METAL	ANTIMONY
METAL	ARSENIC
METAL	BARIUM
METAL	BERYLLIUM
METAL	CADMUM
METAL	CHROMIUM
METAL	CHROMIUM VI
METAL	COBALT
METAL	COPPER
METAL	IRON
METAL	LEAD
METAL	MANGANESE
METAL	MERCURY
METAL	MOLYBDENUM
METAL	NICKEL
METAL	SELENIUM
METAL	SILVER
METAL	THALLIUM
METAL	VANADIUM
METAL	ZINC
VOA	1,1,1-TRICHLOROETHANE
VOA	1,1,2,2-TETRACHLOROETHANE
VOA	1,1,2-TRICHLOROETHANE
VOA	1,1-DICHLOROETHANE
VOA	1,1-DICHLOROETHENE
VOA	1,1-DICHLOROPROPENE
VOA	1,2,4-TRIMETHYLBENZENE
VOA	1,2-DICHLOROETHANE
VOA	1,2-DICHLOROETHENE (TOTAL)
VOA	1,3,5-TRIMETHYLBENZENE
VOA	1,3-DICHLOROBENZENE
VOA	1,4-DIOXANE (note 1)
VOA	2-BUTANONE
VOA	2-HEXANONE
VOA	4-METHYL-2-PENTANONE
VOA	ACETONE
VOA	BENZENE
VOA	BROMODICHLOROMETHANE
VOA	BROMOFORM
VOA	CARBON DISULFIDE
VOA	CARBON TETRACHLORIDE
VOA	CHLOROBENZENE
VOA	CHLOROFORM
VOA	CHLOROMETHANE

Table 3a, Parcel B

Analytical Group	Chemical
VOA	CIS-1,2-DICHLOROETHENE
VOA	CIS-1,3-DICHLOROPROPENE
VOA	ETHYLBENZENE
VOA	M,P-XYLENES
VOA	METHYLENE CHLORIDE
VOA	NAPHTHALENE
VOA	N-BUTYLBENZENE
VOA	O-XYLENE
VOA	PARA-ISOPROPYL TOLUENE
VOA	SEC-BUTYLBENZENE
VOA	STYRENE
VOA	TETRACHLOROETHENE
VOA	TOLUENE
VOA	TRANS-1,2-DICHLOROETHENE
VOA	TRANS-1,3-DICHLOROPROPENE
VOA	TRICHLOROETHENE
VOA	TRICHLOROFLUOROMETHANE
VOA	VINYL CHLORIDE
VOA	XYLENE (TOTAL)
SVOA	2-CHLOROPHENOL
SVOA	1-METHYLNAPHTHALENE (note 1)
SVOA	2-METHYLNAPHTHALENE
SVOA	4-METHYLPHENOL
SVOA	4-NITROPHENOL
SVOA	ACENAPHTHENE
SVOA	ACENAPHTHYLENE
SVOA	ANTHRACENE
SVOA	AZOBENZENE
SVOA	BENZO(A)ANTHRACENE
SVOA	BENZO(A)PYRENE
SVOA	BENZO(B)FLUORANTHENE
SVOA	BENZO(G,H,I)PERYLENE
SVOA	BENZO(K)FLUORANTHENE
SVOA	BENZOIC ACID
SVOA	BENZYL ALCOHOL
SVOA	BIS(2-ETHYLHEXYL)PHTHALATE
SVOA	BUTYLBENZYL PHTHALATE
SVOA	CARBAZOLE
SVOA	CHRYSENE
SVOA	DIBENZ(A,H)ANTHRACENE
SVOA	DIBENZOFURAN
SVOA	DIETHYL PHTHALATE
SVOA	DI-N-BUTYL PHTHALATE
SVOA	DI-N-OCTYL PHTHALATE
SVOA	DIOXIN CONGENERS (note 1)
SVOA	FLUORANTHENE
SVOA	FLUORENE
SVOA	FURAN CONGENERS (note 1)
SVOA	INDENO(1,2,3-CD)PYRENE
SVOA	N-NITROSO-DI-N-PROPYLAMINE
SVOA	N-NITROSODIPHENYLAMINE

Table 3a, Parcel B

Analytical Group	Chemical
SVOA	PENTACHLOROPHENOL
SVOA	PHENANTHRENE
SVOA	PHENOL
SVOA	PYRENE
PEST/PCB	4,4'-DDD
PEST/PCB	4,4'-DDE
PEST/PCB	4,4'-DDT
PEST/PCB	ALDRIN
PEST/PCB	ALPHA-BHC
PEST/PCB	ALPHA-CHLORDANE
PEST/PCB	AROCLOR-1016
PEST/PCB	AROCLOR-1242
PEST/PCB	AROCLOR-1248
PEST/PCB	AROCLOR-1254
PEST/PCB	AROCLOR-1260
PEST/PCB	BETA-BHC
PEST/PCB	DELTA-BHC
PEST/PCB	DIELDRIN
PEST/PCB	ENDOSULFAN I
PEST/PCB	ENDOSULFAN II
PEST/PCB	ENDOSULFAN SULFATE
PEST/PCB	ENDRIN
PEST/PCB	ENDRIN ALDEHYDE
PEST/PCB	ENDRIN KETONE
PEST/PCB	GAMMA-BHC (LINDANE)
PEST/PCB	GAMMA-CHLORDANE
PEST/PCB	HEPTACHLOR
PEST/PCB	HEPTACHLOR EPOXIDE
PEST/PCB	METHOXYCHLOR
PEST/PCB	PCB CONGENERS (note 1)
TPH	DIESEL RANGE ORGANICS
TPH	GASOLINE RANGE ORGANICS
TPH	MOTOR OIL RANGE ORGANICS
TPH	TRPH
ANION	CHLORIDE
ANION	NITRATE
ANION	ORTHOPHOSPHATE
ANION	SULFATE
OTHER	CHRYSOTILE ASBESTOS
OTHER	CYANIDE
OTHER	DIBUTYLTIN
OTHER	MONOBUTYLTIN
OTHER	TETRABUTYLTIN
OTHER	TRIBUTYLTIN
GROUNDWATER	
METAL	ALUMINUM
METAL	ANTIMONY
METAL	ARSENIC
METAL	BARIUM
METAL	BERYLLIUM
METAL	CADMIUM

Table 3a, Parcel B

Analytical Group	Chemical
METAL	CHROMIUM
METAL	CHROMIUM VI
METAL	COBALT
METAL	COPPER
METAL	IRON
METAL	LEAD
METAL	MANGANESE
METAL	MERCURY
METAL	MOLYBDENUM
METAL	NICKEL
METAL	SELENIUM
METAL	SILVER
METAL	THALLIUM
METAL	VANADIUM
METAL	ZINC
VOA	1,1,2,2-TETRACHLOROETHANE
VOA	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE
VOA	1,1-DICHLOROETHANE
VOA	1,1-DICHLOROETHENE
VOA	1,2,4-TRICHLOROBENZENE
VOA	1,2-DICHLOROBENZENE
VOA	1,2-DICHLOROETHANE
VOA	1,2-DICHLOROETHENE (TOTAL)
VOA	1,2-DICHLOROPROPANE
VOA	1,3-DICHLOROBENZENE
VOA	1,4-DICHLOROBENZENE
VOA	1,4-DIOXANE (note 1)
VOA	2-HEXANONE
VOA	ACETONE
VOA	BENZENE
VOA	BROMOMETHANE
VOA	CARBON DISULFIDE
VOA	CHLOROBENZENE
VOA	CHLOROETHANE
VOA	CHLOROFORM
VOA	CIS-1,2-DICHLOROETHENE
VOA	DICHLORODIFLUOROMETHANE
VOA	ETHYLBENZENE
VOA	M,P-XYLENES
VOA	METHYLENE CHLORIDE
VOA	NAPHTHALENE
VOA	TERT-BUTYL METHYL ETHER
VOA	TETRACHLOROETHENE
VOA	TOLUENE
VOA	TRANS-1,2-DICHLOROETHENE
VOA	TRICHLOROETHENE
VOA	TRICHLOROFLUOROMETHANE
VOA	VINYL ACETATE
VOA	VINYL CHLORIDE
VOA	XYLENE (TOTAL)
SVOA	2,4,6-TRICHLOROPHENOL

Table 3a, Parcel B

Analytical Group	Chemical
SVOA	2,6-DINITROTOLUENE
SVOA	1-METHYLNAPHTHALENE (note 1)
SVOA	2-METHYLNAPHTHALENE
SVOA	4-NITROPHENOL
SVOA	ACENAPHTHENE
SVOA	ACENAPHTHYLENE
SVOA	ACETOPHENONE
SVOA	ANTHRACENE
SVOA	BENZALDEHYDE
SVOA	BENZO(A)ANTHRACENE
SVOA	BENZO(A)PYRENE
SVOA	BENZO(B)FLUORANTHENE
SVOA	BIS(2-ETHYLHEXYL)PHTHALATE
SVOA	BUTYLBENZYLPHthalate
SVOA	CAPROLACTAM
SVOA	CHRYSENE
SVOA	DIBENZ(A,H)ANTHRACENE
SVOA	DIETHYLPHthalate
SVOA	DI-N-BUTYLPHthalate
SVOA	DI-N-OCTYLPHthalate
SVOA	DIOXIN CONGENERS (note 1)
SVOA	FLUORANTHENE
SVOA	FLUORENE
SVOA	FURAN CONGENERS (note 1)
SVOA	HEXACHLOROETHANE
SVOA	INDENO(1,2,3-CD)PYRENE
SVOA	N-NITROSODIPHENYLAMINE
SVOA	PENTACHLOROPHENOL
SVOA	PHENANTHRENE
SVOA	PYRENE
PEST/PCB	4,4'-DDD
PEST/PCB	4,4'-DDE
PEST/PCB	ALDRIN
PEST/PCB	ALPHA-BHC
PEST/PCB	ALPHA-CHLORDANE
PEST/PCB	BETA-BHC
PEST/PCB	DELTA-BHC
PEST/PCB	DIELDRIN (note 1)
PEST/PCB	ENDOSULFAN SULFATE
PEST/PCB	ENDRIN ALDEHYDE
PEST/PCB	ENDRIN KETONE
PEST/PCB	GAMMA-CHLORDANE
PEST/PCB	HEPTACHLOR
PEST/PCB	HEPTACHLOR EPOXIDE
TPH	DIESEL RANGE ORGANICS
TPH	GASOLINE RANGE ORGANICS
TPH	MOTOR OIL RANGE ORGANICS
TPH	TPH-UNKNOWN MOTOR OIL

Notes:

BHC

Hexachlorocyclohexane

Chromium VI	Hexavalent chromium
DDD	Dichlorodiphenyldichloroethane
DDE	Dichlorodiphenyldichloroethene
DDT	Dichlorodiphenyltrichloroethane
PCB	Polychlorinated biphenyl
PEST	Pesticide
SVOA	Semivolatile organic analysis
TPH	Total petroleum hydrocarbons
TRPH	Total recoverable petroleum hydrocarbons
VOA	Volatile organic analysis

(b) (5) [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

TABLE 3b

REASONABLY EXPECTED ENVIRONMENTAL CONDITIONS FOR PARCEL G

Analytical Group	Table 3b, Parcel G
	Chemical
	SOIL
METAL	ALUMINUM
METAL	ANTIMONY
METAL	ARSENIC
METAL	BARIUM
METAL	BERYLLIUM
METAL	CADMIUM
METAL	CHROMIUM
METAL	CHROMIUM VI
METAL	COBALT
METAL	COPPER
METAL	IRON
METAL	LEAD
METAL	MANGANESE
METAL	MERCURY
METAL	MOLYBDENUM
METAL	NICKEL
METAL	SELENIUM
METAL	SILVER
METAL	THALLIUM
METAL	VANADIUM
METAL	ZINC
VOA	1,1,1-TRICHLOROETHANE
VOA	1,1,2,2-TETRACHLOROETHANE
VOA	1,1,2-TRICHLOROETHANE
VOA	1,1-DICHLOROETHANE
VOA	1,1-DICHLOROETHENE
VOA	1,2,4-TRICHLOROBENZENE
VOA	1,2-DICHLOROETHANE
VOA	1,2-DICHLOROETHENE (TOTAL)
VOA	1,4-DIOXANE (note 1)
VOA	2-BUTANONE
VOA	4-METHYL-2-PENTANONE
VOA	ACETONE
VOA	BENZENE
VOA	CARBON DISULFIDE
VOA	CHLOROFORM
VOA	ETHYLBENZENE
VOA	M,P-XYLENES
VOA	METHYLENE CHLORIDE
VOA	NAPHTHALENE
VOA	O-XYLENE
VOA	TETRACHLOROETHENE
VOA	TOLUENE
VOA	TRICHLOROETHENE
VOA	VINYL CHLORIDE (note 1)

Analytical Group	Table 3b, Parcel G
VOA	XYLENE (TOTAL)
SVOA	2,4-DIMETHYLPHENOL
SVOA	1-METHYLNAPHTHALENE (note 1)
SVOA	2-METHYLNAPHTHALENE
SVOA	2-METHYLPHENOL
SVOA	4-METHYLPHENOL
SVOA	ACENAPHTHENE
SVOA	ANTHRACENE
SVOA	BENZO(A)ANTHRACENE
SVOA	BENZO(A)PYRENE
SVOA	BENZO(B)FLUORANTHENE
SVOA	BENZO(G,H,I)PERYLENE
SVOA	BENZO(K)FLUORANTHENE
SVOA	BIS(2-ETHYLHEXYL)PHTHALATE
SVOA	BUTYLBENZYLPHthalate
SVOA	CARBAZOLE
SVOA	CHRYSENE
SVOA	DIBENZ(A,H)ANTHRACENE
SVOA	DIBENZOFURAN
SVOA	DI-N-BUTYLPHthalate
SVOA	DI-N-OCTYLPHthalate
SVOA	DIOXIN CONGENERS (note 1)
SVOA	FLUORANTHENE
SVOA	FLUORENE
SVOA	FURAN CONGENERS (note 1)
SVOA	INDENO(1,2,3-CD)PYRENE
SVOA	ISOPHORONE
SVOA	PENTACHLOROPHENOL
SVOA	PHENANTHRENE
SVOA	PHENOL
SVOA	PYRENE
PEST/PCB	4,4'-DDD
PEST/PCB	4,4'-DDE
PEST/PCB	4,4'-DDT
PEST/PCB	ALDRIN
PEST/PCB	ALPHA-CHLORDANE
PEST/PCB	AROCLOR-1242
PEST/PCB	AROCLOR-1254
PEST/PCB	AROCLOR-1260
PEST/PCB	BETA-BHC
PEST/PCB	DELTA-BHC
PEST/PCB	DIELDRIN
PEST/PCB	ENDOSULFAN I
PEST/PCB	ENDOSULFAN II
PEST/PCB	ENDRIN
PEST/PCB	ENDRIN ALDEHYDE
PEST/PCB	ENDRIN KETONE
PEST/PCB	GAMMA-CHLORDANE
PEST/PCB	HEPTACHLOR
PEST/PCB	HEPTACHLOR EPOXIDE
PEST/PCB	PCB CONGENERS (note 1)

Table 3b, Parcel G

Analytical Group	Chemical
TPH	DIESEL RANGE ORGANICS
TPH	GASOLINE RANGE ORGANICS
TPH	MOTOR OIL RANGE ORGANICS
TPH	TRPH
ANION	CHLORIDE
ANION	NITRATE
ANION	ORTHOPHOSPHATE
ANION	SULFATE
GROUNDWATER	
METAL	ALUMINUM
METAL	ANTIMONY
METAL	ARSENIC
METAL	BARIUM
METAL	BERYLLIUM
METAL	CADMIUM
METAL	CHROMIUM
METAL	CHROMIUM VI
METAL	COBALT
METAL	COPPER
METAL	IRON
METAL	LEAD
METAL	MANGANESE
METAL	MERCURY
METAL	MOLYBDENUM
METAL	NICKEL
METAL	SELENIUM
METAL	SILVER
METAL	THALLIUM
METAL	VANADIUM
METAL	ZINC
VOA	1,1,1-TRICHLOROETHANE
VOA	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE
VOA	1,1,2-TRICHLOROETHANE
VOA	1,1-DICHLOROETHANE
VOA	1,2-DICHLOROETHANE
VOA	1,2-DICHLOROETHENE (TOTAL)
VOA	1,4-DIOXANE (note 1)
VOA	2-HEXANONE
VOA	4-METHYL-2-PENTANONE
VOA	ACETONE
VOA	BENZENE
VOA	BROMOMETHANE
VOA	CARBON DISULFIDE
VOA	CARBON TETRACHLORIDE
VOA	CHLOROFORM
VOA	CHLOROMETHANE
VOA	CIS-1,2-DICHLOROETHENE
VOA	ETHYLBENZENE
VOA	METHYLENE CHLORIDE
VOA	NAPHTHALENE
VOA	TERT-BUTYL METHYL ETHER

Analytical Group	Table 3b, Parcel G
	Chemical
VOA	TETRACHLOROETHENE
VOA	TOLUENE
VOA	TRANS-1,2-DICHLOROETHENE
VOA	TRICHLOROETHENE
VOA	TRICHLOROFLUOROMETHANE
VOA	VINYL CHLORIDE (note 1)
VOA	XYLENE (TOTAL)
SVOA	2,4-DIMETHYLPHENOL
SVOA	1-METHYLNAPHTHALENE (note 1)
SVOA	2-METHYLNAPHTHALENE
SVOA	4-METHYLPHENOL
SVOA	ACENAPHTHYLENE
SVOA	ANTHRACENE
SVOA	BENZO(B)FLUORANTHENE
SVOA	BIS(2-ETHYLHEXYL)PHTHALATE
SVOA	DIOXIN CONGENERS (note 1)
SVOA	FLUORENE
SVOA	FURAN CONGENERS (note 1)
SVOA	HEXACHLOROETHANE
SVOA	PHENOL
TPH	DIESEL RANGE ORGANICS
TPH	GASOLINE RANGE ORGANICS
TPH	MOTOR OIL RANGE ORGANICS
TPH	TPH-UNKNOWN MOTOR OIL
OTHER	CYANIDE

Notes:

BHC	Hexachlorocyclohexane
Chromium VI	Hexavalent chromium
DDD	Dichlorodiphenyldichloroethane
DDE	Dichlorodiphenyldichloroethene
DDT	Dichlorodiphenyltrichloroethane
PCB	Polychlorinated biphenyl
PEST	Pesticide
SVOA	Semivolatile organic analysis
TPH	Total petroleum hydrocarbons
TRPH	Total recoverable petroleum hydrocarbons
VOA	Volatile organic analysis

Internal notes for Navy team, to be deleted before submittal to SFRA:

- 1 This chemical was not detected in samples collected at HPS, but is expected to be present based on historical operations and processes or the breakdown of other chemicals that were detected.

2 Radionuclides have been detected in soil and groundwater samples but are not included in the table because radionuclides are a Navy retained condition (except for radionuclides that do not require special handling).